

09/643190

**ABSTRACT**

In one embodiment, a method involves, in response to movement of a user during at least one footstep taken by the user, generating a signal that experiences changes during a time period that the foot is airborne during the at least one footstep. At least one change in the signal generated after the foot has become airborne and before the foot contacts a surface is identified that is indicative of the foot being airborne during the at least one footstep. In another embodiment, a method involves generating a signal in response to movement of a user during at least one footstep taken by the user. The signal is monitored to determine when the signal has experienced a minimum degree of smoothness for at least a given period of time. In response to determining that the signal has experienced the minimum degree of smoothness for at least the given period of time, it is identified that the foot of the user is airborne.

09/643190, 08/21/00